DPW UPDATE
January 2003

TEAMWORK = SUCCESS in GPS MAPPING EFFORT

by Tom Davis, Field Engineering

When the Regional Water Quality Control Board (RWQCB) gave DPW less than six months to develop watershed maps incorporating all existing DPW drainage facilities, Flood Control Manager Joe McDivitt, didn't waste any time. He immediately set up meetings with Engineering, Transportation and Land Development staff, to figure out how to complete the unexpected and enormous task.

Since there are over 15,000 facilities in DPW inventory, DPW originally anticipated production of the maps would take two to three years. However, the requested maps, plotted with exact locations had to be delivered to the RWQCB by early January or else our Municipal Stormwater Permit would be in jeopardy.

John Taylor, Tony Ariosta and Richard Berg plot the location of a drainage facility.

To be successful, this project required a well-coordinated, well-planned, interdepartmental approach, including additional outside resources. McDivitt enlisted the help of Land Development's GIS group. He asked them to convert existing records data of 10,940 culverts and 1,175 RGP-53 Flood Control and drainage channels.

He also retrieved consultants from *Rick Engineering* to collectively identify 4,000 stormwater drainage facilities from more than 480 subdivision maps. They were turned into Watershed Maps.

Even then, more than 4,000 culverts and drainages remained unplotted, and time was running short. Transportation field staff were trained on the use of Global Positioning System (GPS) receivers, outfitted with laptop computers and sent to work. They criss-crossed the county, from De Luz to Jacumba, and the mountains to Otay Mesa in search of coordinates for other County drainage facilities. Using spreadsheets listing unmapped culverts and drainages, they collected GPS coordinate data for these facilities and imputed them directly onto the laptops. At the end of each week, Fred McCamic of the GIS merged data files.

On December 20, the GPS mapping effort was complete. Thanks to the dedication and effort by DPW office staff, DPW field crews, and Rick Engineering, DPW now has all 15,000 of their drainage facilities plotted onto Watershed Maps and therefore satisfied RWQCB requirements.

Members of the project team included Rand Allan of Flood Control, who coordinated various facets of the project, Mike Binge and Fred McCamic in GIS, who coordinated data entry into the GIS database and Bob Kutscher of *Rick Engineering*, who oversaw the digitizing of pipes and structures within various County subdivisions. Field staff led by John Taylor included Pete Swenson, Tony Ariosta, Richard Berg, Pete Caito, Burt Quick, Al Parra and Kody Songer of the Division II Stormwater Strike Team. Field staff led by Mark Lumpkins included Chuck Daudert, Allen Williams and Richard Fowles of the Division I Stormwater Strike Team. Jim Torres and Paul Mansour of Flood Control assisted with the location and mapping of all flood control channels.

Training

Be Ready to Save a Life

by Kirsten Aaboe Hope, Training Office

If you ever need to help a heart attack victim, training on how to use emergency safety equipment could make the difference between life and death. A defibrillator is a machine that delivers an electric current to stabilize an erratic heartbeat. Early access to Automatic External Defibrillator (AED) devices is vital in saving victims of sudden cardiac arrest. During January and February, defibrillator training will be available to DPW staff.

The Heartsaver AED course, developed by the American Heart Association, reviews adult CPR skills and teaches paricipants how to use defibrillator. Additional sessions, solely focused on the AED, are scheduled for those who have either received:

a) CPR training in the past that included just an introduction to AED or
b) CPR certification and who would like training only in the use of the AED.

Included in the AED training are: early recognition of medical emergencies, signs and symptoms of heart attack, stroke and airway obstruction, managing the unconscious breathing patient, rescue breathing with and without barrier devices, and electrode pad placement and trouble-shooting problems. Participants practice all skills with scenarios on manikins and AED trainer models.

Sessions will be held in three locations: Division I Headquarters, Division II Headquarters, and the Emergency Operations Center in Kearny Mesa. Once training is conducted, defibrillators will be purchased for those sites with staff trained to use them. The manager of your section has the specific training dates for the location nearest you.

Have You Heard Enough?

by Jack E. Thompson, Safety Officer

When it comes to hearing protection, the question to ask is: When have you heard enough? You require hearing protection when you work in an environment with a continuous decibel level greater than 85. How loud is 85 decibels? A lawnmower, electric drill, table saw, and shop vacuum are all above 85 decibels.

Do you experience a ringing in your ears after working in a noisy area? Would you feel more comfortable with hearing protection? Answering "yes" to these questions may indicate it's time you protect your ears.

As a rule of thumb, if you need to raise your voice to be heard by a co-worker just 3 feet away, hearing protection is necessary. But the most reliable way test the danger of noise levels around you is to consult qualified personnel. Check with your supervisor to see if tests have been done recently in your section. If so, and you know just how noisy your environment can be, you'll know what type of hearing protection devices are appropriate for you.

All hearing protection devices are labeled with a noise reduction rating (NRR). For example, if you work in an environment where you are exposed to a noise level of 100 decibels, you require hearing protection to bring the level down to 85 decibels or less. Simple subtraction will tell you a hearing protection device with an NRR rating of 15 should do the trick. There are many different types of protection designed to limit the amount of noise that reaches the inner ear. Here are several examples. Discuss these options with your supervisor:

Earplugs: the most common type of ear protection, come in different varieties and materials. They are placed in the outer ear and can reduce noise by as much as 30 decibels.

Canal caps: these close off the inner ear and are used with a headband or string connecting caps. Caps are most often used when an earplug is not viable.

Earmuffs: also a common hearing protection device and filter out 15 to 30 decibels of noise. Specialized earmuffs are available that will filter out particular frequencies of noise allowing the user to hear speech. When faced with noise levels above 100 decibels, you should consider a combination of earmuffs and plugs.

Remember these devices are designed to protect you. If you can't understand what your co-workers are saying, you might have too much hearing protection or the wrong kind. Too much protection puts you at risk for injury because you can't hear machines or your co-workers. So, it's important that the hearing protection device you choose fits properly and is kept in proper working condition. Hearing loss is something you don't notice until it's too late, so protect your ears for a safer and more comfortable work environment.

DIVISION NEWS:

Transportation Services

DPW Joins Fly Battle

When agricultural officials found Mexican fruit flies infesting Valley Center, they needed a place to establish a base camp. That spot is the Valley Center road station.

Six office trailers line the east fence of the station's pit. It's there federal, state and County staff will command operations in the 117-square mile quarantine area. In addition to providing space, DPW road crews also installed warning signs throughout the community to prevent transporting local produce out of the area.

Management Services

Training's New Face

Kirsten Aaboe Hope has taken over as DPW's staff development coordinator. Kirsten comes to DPW from the County's Human Resources Employee Development Division. There she's spent 11 years working in the Training, Diversity Management, Recruitment and Selection, and Classification/Compensation sections.

"I like being part of an organization devoted to public service," said Kirsten. "I'm always impressed with the backgrounds and wide variety of skills of County employees."

In her new position, she plans to continue efforts to develop the professional skills of DPW employees, which ultimately boost department effectiveness.

Kirsten holds two master's degrees: one in Fine Arts from UCSD and one in Business Administration from Cal State San Marcos. She earned her bachelor's in Fine Arts from UCSD.

Engineering Services

VC Road to Widen

Valley Center Road is the main access between Escondido and Valley Center. With additional residence and business developments in these communities comes increased traffic. In order to maintain safety and efficiency on the narrow and windy Valley Center Road, DPW t plans to not only widen it, but construct a center median.

Funding for the $30 million project came from Transnet gas taxes and earmarked donations from neighboring Indian casinos.

Phase I of the project begins this

summer, with Phases II and III kicking off in summer 2004. A fourth phase, still on the drawing board, is proposed for spring 2006.

"Our goals are to improve the safety of the community and to lessen the impacts of this project when possible," said Doug Isbell, Deputy Director of Engineering Services. Before construction begins, several environmental issues must be tackled: proper permits must be secured for vegetation removal; and trees and shrubs in the immediate area will be cleared out before breeding season begins for birds and other species. In cooperation with the Valley Center Community Planning Group, oak trees will be transplanted where feasible.

"This is a large, challenging public works project - one that has involved many people as it's taken shape," said Brendan McNabb, project manager. "It's gratifying to focus in on the final push to get the project to construction and ultimately deliver a better and safer road to the Valley Center motoring public."

For more information on the project, call the 24-hour hotline at (619) 232-2640.